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Remarks

Submitted herewith are newly added claims, 25-31. Claim 25 is substantially identical to combined Claims 1-3 of the original patent. Likewise, Claim 29, which replaces Claim 7 of the original patent, is substantially identical to Claim 7 of the original patent. The same is true of Claim 30, which replaces Claim 8, and Claim 31, which replaces Claim 9, both of which are substantially identical to the original Claims 8 and 10, respectively, of the patent.

In short, Claim 25-31 are substantially identical to Claims 1-6, 7, and 10 of the original claims of the patent. Since it is abundantly clear from the specification and drawings of the original patent that the original claims covered the use of multiple diffusers, and since Claims 25-31 are substantially identical with the original claims, it is clear that Claims 25-31 likewise cover the use of multiple diffusers.

Respectfully submitted,

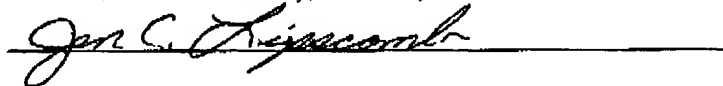


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CERTIFICATE OF FACSIMILE TRANSMISSION

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CLEAN VERSION OF NEWLY ADDED CLAIMS

25. (New) In an aerobic wastewater treatment plant comprising:

an aeration chamber containing aerobic bacteria into which wastewater containing organic solids flows to be exposed to aerobic bacteria to digest the organic solids in the wastewater, said aeration chamber having a substantially flat bottom and side walls,

means for injecting an oxygenation gas into the wastewater in the aeration chamber to support growth of the aerobic bacteria, and

a clarifier chamber into which wastewater from the aeration chamber flows upwardly toward an outlet pipe through which the wastewater flows from the wastewater treatment plant, said clarifier chamber being defined by a partition in the form of an inverted, truncated cone into the bottom of which the wastewater flows from the aeration chamber,

the improvement comprising a diffuser for releasing the oxygenation gas as bubbles into the aeration chamber of the wastewater treatment plant, said diffuser providing sufficient flow such that all solids suspended within the plant are forced into circulation, said diffuser being placed close to the bottom of the aeration chamber of the wastewater treatment plant and close to the side wall of the aeration chamber, said diffuser providing sufficient oxygenation gas to aerobically digest the organic solids in the wastewater, the released oxygenation gas producing a current pattern in the aeration chamber, the current pattern flowing upwardly from a position of the diffuser in a direction perpendicular to the bottom of the aeration chamber and parallel to the side wall of the aeration chamber, then around the partition which defines the clarifier chamber, then downwardly along the opposite side wall to the bottom and then across the bottom under the opening to the clarifier chamber and around the side wall of the aeration chamber adjacent the bottom of the chamber to keep solids from settling on the bottom of the aeration chamber.

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26. (New) The wastewater treatment plant of claim 25 wherein said oxygenation gas injecting means further comprises

a drop line having a first end attached to an external oxygenation source and a second end open to dispense oxygenation gas received from the external oxygenation gas source, said second end being attached to said diffuser.

27. (New) The wastewater treatment plant of claim 26 wherein said oxygenation gas injecting means further comprises

a rigid conduit mounted to the inside of the wastewater treatment plant for receiving and firmly securing the drop line such that the drop line extends from the oxygenation source towards the bottom of the plant.

28. (New) The wastewater treatment plant of claim 27 wherein said rigid conduit extends generally parallel to the partition and from there generally to the bottom of the wastewater treatment plant such that the rigid conduit is intimately connected to the partition.

29. (New) In an aerobic wastewater treatment plant comprising:

an aeration chamber into which the wastewater flows to be exposed to aerobic bacteria to digest the organic solids in the wastewater, said aeration chamber having a bottom and side walls,

means for injecting an oxygenation gas into the wastewater in the aeration chamber to support growth of the aerobic bacteria, and

a clarifier chamber in which wastewater from the aeration chamber flows upwardly toward an outlet pipe through which the wastewater flows from the wastewater treatment plant, said clarifier chamber being defined by a partition in the form of an inverted, truncated cone into the bottom of which the wastewater flows from the aeration chamber,

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the improvement comprising a current pattern produced in the aeration chamber, the current pattern flowing upwardly from a position close to the bottom and the side wall of the aeration chamber in a direction perpendicular to the bottom of the aeration chamber and parallel to the side wall of the aeration chamber, then around the partition which defines the clarifier chamber, then downwardly along the opposite side wall to the bottom and then across the bottom under the opening to the clarifier chamber and around the side wall of the aeration chamber adjacent the bottom of the chamber to keep solids from settling on the bottom of the aeration chamber.

30. (New) The method of creating a current inside an aeration chamber of a wastewater treatment plant, said aeration chamber having a bottom and side walls, comprising

injecting an oxygenation gas such that a current pattern is produced in the aeration chamber, the current pattern flowing upwardly from a position close to the bottom and side wall of the aeration chamber in a direction perpendicular to the bottom of the aeration chamber and parallel to the side wall of the aeration chamber, then around the partition which defines a clarifier chamber, then downwardly along the opposite side wall to the bottom and then across the bottom under an opening to the clarifier chamber and around the side wall of the aeration chamber adjacent the bottom of the aeration chamber to keep solids from settling on the bottom of the aeration chamber.

31. (New) An aerobic wastewater treatment plant comprising:

an aeration chamber into which the wastewater flows to be exposed to aerobic bacteria to digest the organic solids in the wastewater, said aeration chamber having a bottom and side walls,

means for injecting an oxygenation gas into the wastewater in the aeration chamber to support growth of the aerobic bacteria,

a clarifier chamber in which wastewater from the aeration chamber flows upwardly toward an outlet pipe through which the wastewater flows from the wastewater treatment plant, said clarifier

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chamber being defined by a partition in the form of an inverted, truncated cone into the bottom of which the wastewater flows from the aeration chamber, and

a current pattern in the aeration chamber, the current pattern flowing upwardly from a position close to the bottom and the side wall of the aeration chamber in a direction perpendicular to the bottom of the aeration chamber and parallel to the side wall of the aeration chamber, then around the partition which defines the clarifier chamber, then downwardly along the opposite side wall to the bottom and then across the bottom under the opening to the clarifier chamber and around the side wall of the aeration chamber adjacent the bottom of the chamber to keep solids from settling on the bottom of the aeration chamber.